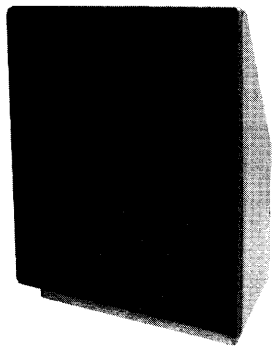
SA-ED1

SERVICE MANUAL

Ver 1.1 2001. 06

US Model
Canadian Model
AEP Model
UK Model
E Model



This set is the speaker system in CMT-ED1.

SPECIFICATIONS

Speaker system	Full range, active MFB
Speaker units:	10 cm dia., cone type
Rated impedance	4 ohms
Dimensions (w/h/d)	Approx. 195 x 205 x 120 mm (7 3/4 x 8 1/8 x 4 3/4 in)
Mass	Approx. 1.5 kg (3 lb 7 oz.) net per speaker

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SPEAKER SYSTEM

9-922-707-12
2001F0200-1
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Sony Corporation
Home Audio Company
Shinagawa Tec Service Manual Production Group

SONY

Service Note

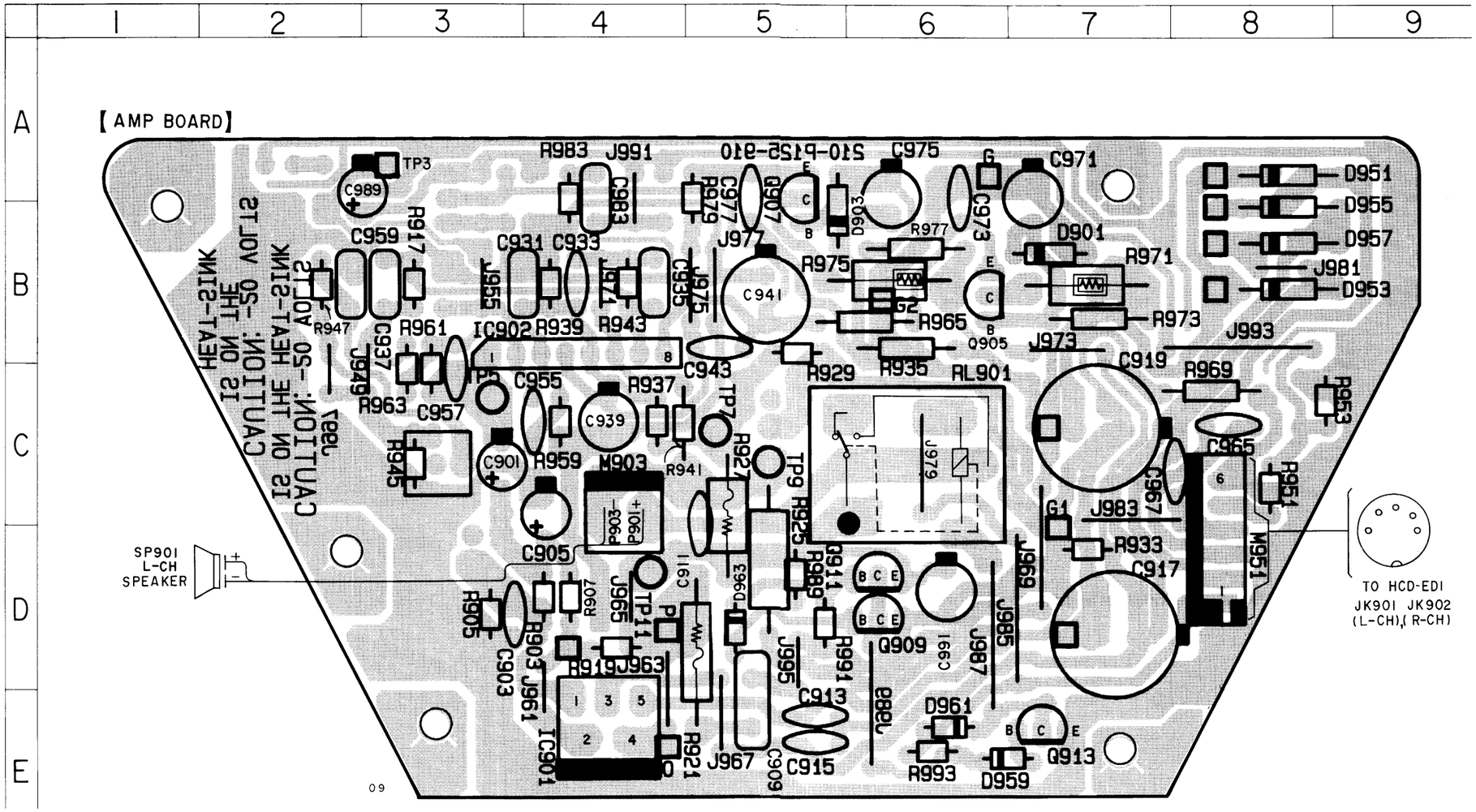
As the power supply is not on-board for this unit, it cannot be operated by itself.
Connect this unit to HCD-ED1 for servicing.
The measurement value of voltage mentioned in this manual is that when this unit is connected to HCD-ED1.

SECTION 1
DIAGRAMS

1-1. PRINTED WIRING BOARD

- **Semiconductor Location**

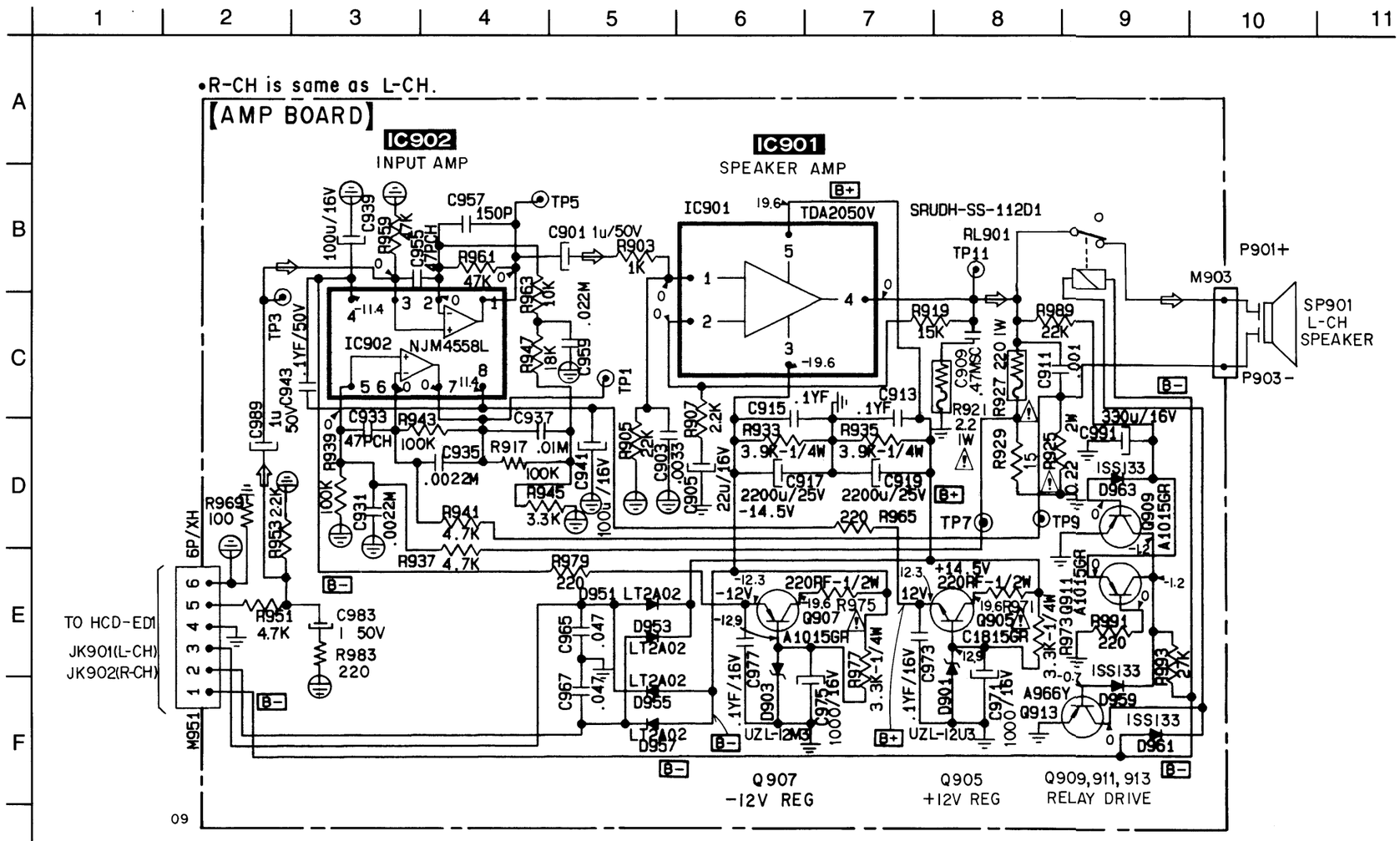
Ref. No.	Location
D901	B-7
D903	B-5
D951	A-8
D953	B-8
D955	B-8
D957	B-8
D959	E-6
D961	E-6
D963	D-5
IC901	E-4
IC902	B-4
Q905	B-6
Q907	A-5
Q909	D-6
Q911	D-6
Q913	E-7



Note:

- ——— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enable seeing.

1-2. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- .XX, .XYF and .XXXMSC mean 0.XXXμF in the constant display of capacitors.
- : fusible resistor
- The name if transistor type is simplified as below:
  2SA1015GR → A1015GR
  2SA966Y → A966Y
  2SC1815GR → C1815GR
- B+ : B+ Line
- B– : B– Line
- Voltage and waveforms are dc with respect to ground under no-signal (deturned) conditions.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Ground (GND) mark
  : Signal GND
  : Power GND
- Signal path.
  : AUDIO

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

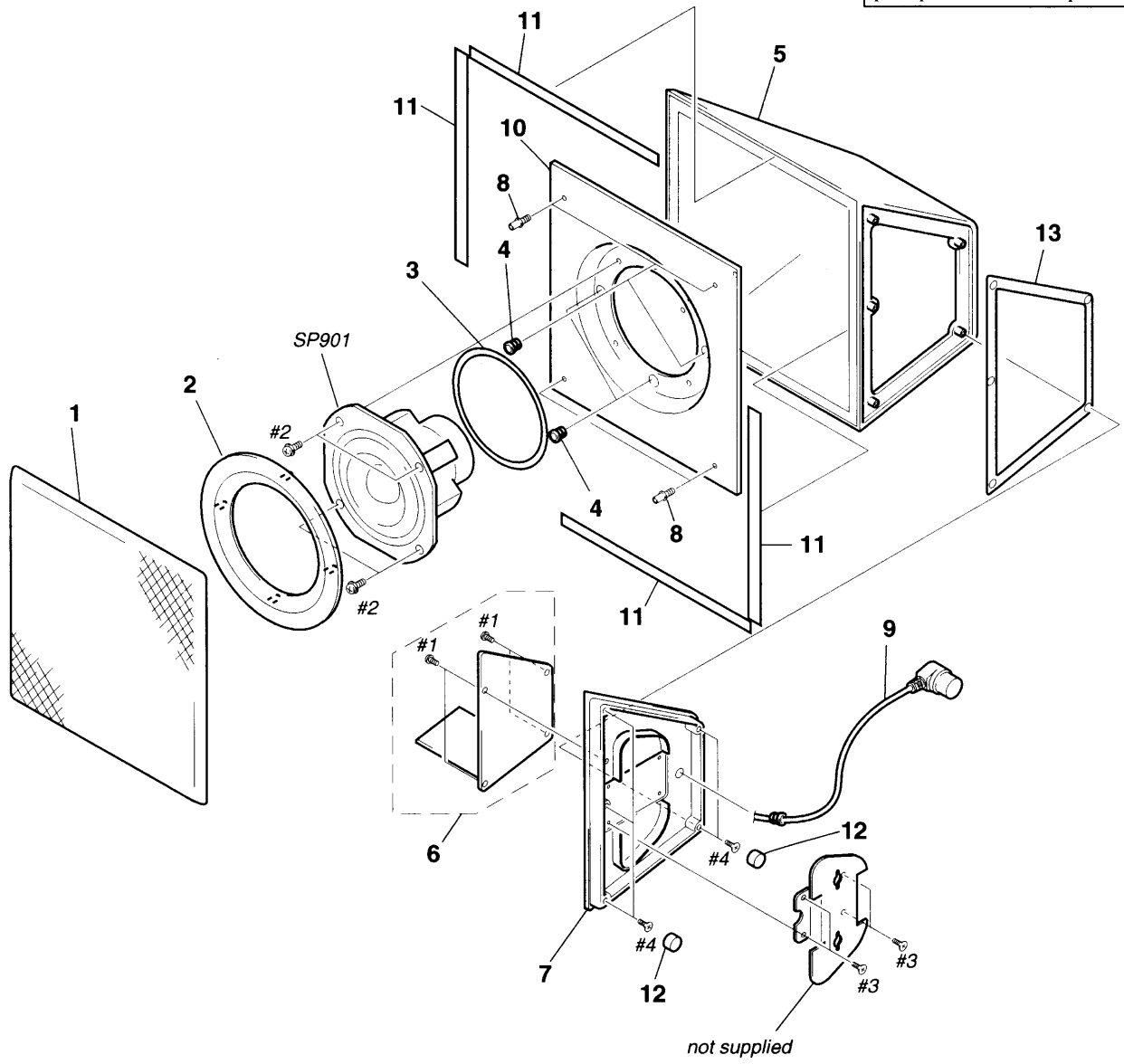
SECTION 2
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remark
1	4-997-393-01	CLOTH FRAME ASSY (RED)	
2	4-997-389-01	SPK RING	
3	4-997-390-01	EVA PACKING	
4	4-997-391-01	CATCHER	
5	4-997-388-01	SPX BOX	
* 6	A-4407-237-A	AMP BOARD, COMPLETE	
7	4-997-387-01	SPK BTM COVER	
8	4-997-384-01	PIN SCREW	
9	1-783-075-11	CORD, SPEAKER	
* 10	4-997-385-01	SPK BAFFLE	
11	4-997-392-01	EVA PACKING	
12	4-997-394-01	SPK FOOT	
13	4-997-395-01	BTM PACKING	
SP901	1-505-839-11	SPEAKER (10CM)	

SECTION 3
ELECTRICAL PARTS LIST

AMP

Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- CAPACITORS
  uF : μ F

Ref. No.	Part No.	Description				Remark
*	A-4407-237-A	AMP BOARD, COMPLETE				
		**********				
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S				
		< CAPACITOR >				
C901	1-126-964-11	ELECT	10uF	20%	50V	
C903	1-102-123-00	CERAMIC	0.0033uF	10%	50V	
C905	1-127-499-00	ELECT(SOLID)	22uF	20%	16V	
C909	1-136-173-00	FILM	0.47uF	5%	50V	
C911	1-102-074-00	CERAMIC	0.001uF	10%	50V	
C913	1-161-772-11	CERAMIC	0.1uF	10%	25V	
C915	1-161-772-11	CERAMIC	0.1uF	10%	25V	
C917	1-126-943-11	ELECT	2200uF	20%	25V	
C919	1-126-943-11	ELECT	2200uF	20%	25V	
C931	1-130-475-00	MYLAR	0.0022uF	5%	50V	
C933	1-102-852-91	CERAMIC	47PF	5%	50V	
C935	1-130-475-00	MYLAR	0.0022uF	5%	50V	
C937	1-137-364-11	FILM	0.001uF	5%	50V	
C939	1-126-933-11	ELECT	100uF	20%	16V	
C941	1-126-933-11	ELECT	100uF	20%	16V	
C943	1-161-063-00	CERAMIC	0.1uF	10%	50V	
C955	1-102-852-91	CERAMIC	47PF	5%	50V	
C957	1-102-108-00	CERAMIC	150PF	10%	50V	
C959	1-137-372-11	FILM	0.022uF	5%	50V	
C965	1-101-006-00	CERAMIC	0.047uF		50V	
C967	1-101-006-00	CERAMIC	0.047uF		50V	
C971	1-126-926-11	ELECT	1000uF	20%	10V	
C973	1-162-851-11	CERAMIC	0.1uF	10%	16V	
C975	1-126-926-11	ELECT	1000uF	20%	10V	
C977	1-162-851-11	CERAMIC	0.1uF	10%	16V	
C983	1-126-960-11	ELECT	1uF	20%	50V	
C989	1-126-960-11	ELECT	1uF	20%	50V	
C991	1-104-661-91	ELECT	330uF	20%	16V	
		< DIODE >				
D901	8-719-001-76	DIODE UZL-12M3				
D903	8-719-001-76	DIODE UZL-12M3				
D951	8-719-031-53	DIODE LT2A02				
D953	8-719-031-53	DIODE LT2A02				
D955	8-719-031-53	DIODE LT2A02				
D957	8-719-031-53	DIODE LT2A02				
D959	8-719-920-76	DIODE 1S2076				
D961	8-719-920-76	DIODE 1S2076				
D963	8-719-920-76	DIODE 1S2076				

Ref. No.	Part No.	Description				Remark
		< IC >				
IC901	8-759-988-94	IC TDA2050				
IC902	8-759-505-55	IC NJM4558L				
		< CONNECTOR >				
* M951	1-506-947-11	PIN, CONNECTOR 6P				
		< TRANSISTOR >				
Q905	8-729-281-53	TRANSISTOR 2SC1815-GR				
Q907	8-729-201-53	TRANSISTOR 2SA1015-GR				
Q909	8-729-201-53	TRANSISTOR 2SA1015-GR				
Q911	8-729-201-53	TRANSISTOR 2SA1015-GR				
Q913	8-729-200-36	TRANSISTOR 2SA966-Y				
		< RESISTOR >				
R903	1-249-417-11	CARBON	1K	5%	1/4W	F
R905	1-247-863-91	CARBON	22K	5%	1/4W	
R907	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R917	1-249-441-11	CARBON	100K	5%	1/4W	
R919	1-249-431-11	CARBON	15K	5%	1/4W	
⚠R921	1-213-044-61	FUSIBLE	2.2	5%	1W	F
⚠R925	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
⚠R927	1-212-990-61	FUSIBLE	220	5%	1/2W	F
R929	1-249-395-11	CARBON	15	5%	1/4W	F
R933	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R933	1-249-434-11	CARBON	27K	5%	1/4W	
R935	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R937	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R939	1-249-441-11	CARBON	100K	5%	1/4W	
R941	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R943	1-249-441-11	CARBON	100K	5%	1/4W	
R945	1-247-843-11	CARBON	3.3K	5%	1/4W	
R947	1-249-432-11	CARBON	18K	5%	1/4W	
R951	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R953	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R959	1-249-437-11	CARBON	47K	5%	1/4W	
R961	1-249-437-11	CARBON	47K	5%	1/4W	
R963	1-249-429-11	CARBON	10K	5%	1/4W	
R965	1-247-815-91	CARBON	220	5%	1/4W	
R969	1-247-807-31	CARBON	100	5%	1/4W	
⚠R971	1-247-743-11	CARBON	220	5%	1/2W	F
R973	1-247-843-11	CARBON	3.3K	5%	1/4W	
⚠R975	1-247-743-11	CARBON	220	5%	1/2W	F
R977	1-247-843-11	CARBON	3.3K	5%	1/4W	
R979	1-247-815-91	CARBON	220	5%	1/4W	

Ref. No.	Part No.	Description			Remark
R983	1-247-815-91	CARBON	220	5%	1/4W
R989	1-247-863-91	CARBON	22K	5%	1/4W
R991	1-247-815-91	CARBON	220	5%	1/4W
		< RELAY >			
RL901	1-755-243-11	RELAY			

****

MISCELLANEOUS
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9	1-783-075-11	CORD, SPEAKER
SP901	1-505-839-11	SPEAKER (10cm)

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****
HARDWARE LIST
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#1	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S
#2	7-682-562-09	SCREW +B 4X10
#3	7-685-247-14	SCREW +KTP 3X10 TYPE2 NON-SLIT
#4	7-685-249-14	SCREW +KTP 3X14 TYPE2 NON-SLIT

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.1	2001.06	PDF registration.
1.0	1997.09	New.